

REMARKS

As an initial matter, Applicant appreciates the thorough examination by the Examiner.

Replacement Drawing Sheets Provided

Applicant submits herein replacement drawing sheets in compliance with 37 C.F.R. 1.121(d). In particular, Applicant proposes to substitute replacement drawing sheets 1-8 depicting Figures 1-8 for original drawing sheets 1-8 depicting Figures 1-8 as filed. The proposed replacement drawing sheets more clearly depict the numbered elements. Further, Applicant has now labeled the wheels or rollers of the platform 54 appearing in Figures 7 and 8 as element number 63.

Amended Specification

Applicant has amended paragraph 69, to recite the wheels or rollers of the platform as previously depicted in Figures 7 and 8 and now labeled element number 63.

The Examiner's Rejections

The Examiner rejects claims 1-2, 4-10, 12, 15-25, and 28 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5980836 to Moffett.

The Examiner also rejects claims 3, 11, 13, 14, 26, 27, and 29-33 under 35 U.S.C. §103(a) as being unpatentable over Moffett in view of—either alone or in combination with—U.S. Patent No. 3957203 to Bullard and U.S. Patent No. 3074649 to Atkinson.

In response to the Examiner's above-referenced rejections, Applicant submits amended claims and addresses the Examiner's concerns herein below.

The Amended Claims Are Not Anticipated by Moffett

The Examiner has rejected claims 1, 2, 4-10, 12, 15-25, and 28 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5980836 to Moffett. The Examiner alleges that Moffett discloses a liquid mixing device capable of mixing any liquid desired which is placed in solution tanks 10, 12, 14, 16; pump assemblies 68, 36, 44, 24, 102, 84; a manifold 20, 52, 76, 78, 20, 20A, 78, 78A, 76, 76A, 78, and 106; and a drain assembly. The Examiner further alleges that Moffett discloses conduits and couplings to couple the conduits with the tanks, pumps, valves, and drains. Still further, the Examiner argues that the tank 16 may be heated.

Applicant respectfully disagrees with the Examiner's assessment of the pump assemblies, namely the motors and drive assemblies, as disclosed by Moffett for the reasons set forth below. Applicant further disagrees with the Examiner's assessment of the mixing device as disclosed in Moffett and its alleged capability to draw liquids from the tanks in defined ratios.

Moffett

Moffett discloses an apparatus for preparing low concentration polysilicate microgels that includes a number of reservoirs 10, 12, 14; a number of pump assemblies 68, 36, 44, 24, 102, 84; and a number of manifolds 20, 52, 76, 78 (see Figure 1), 20, 20A, 78, 78A, 76, 76A (see Figure 2), 78, 106, 20 (see Figure 3). As disclosed in Moffett, the pumps are spaced apart from one another and arranged immediately adjacent to the respective reservoirs (i.e., the pumps are not aligned adjacent to one another). Accordingly, Applicant submits that as disclosed the drive assemblies of each pump in Moffett are incapable of being driven by a motor secured to another pump. In other words, none of the pumps disclosed by Moffett include a motor that is capable of engaging and driving one or more drive assemblies of another pump. Accordingly, the

pumps of Moffet are incapable of operating in conjunction with one another. Briefly, Moffett discloses an apparatus that includes pumps restricted to independent operation.

In contrast, the present invention provides a plurality of tanks 15, 16, 17, 18, a pump assembly having one or more pumps 22, 23, 24 (each including a drive assembly 26), and one or more motors 25 connected to the drive assemblies, wherein the motor engages the drive assembly of one pump to drive one or more of the drive assemblies of the other pumps. See Figs. 1-3, and 5.

The Examiner alleges that Moffet discloses pump assemblies of the type claimed in the present application. Office Action, page 2, para. 2. Applicant submits that the pumps disclosed by Moffett are positioned within the system in such a fashion as to prevent a motor of a first pump to engage and drive the drive assembly of a second or third pump. Stated differently, the Moffet pumps are not aligned and do not include a motor that is capable of engaging and driving the drive assembly of another pump. Accordingly, Moffett fails to disclose an apparatus having pumps that are aligned such that a motor of one pump drives the drive assemblies of other pumps. Instead, the pumps of Moffet are spaced apart and incapable of uniformly engaging and operating the drive assemblies of the other pumps.

In contrast, the pump assemblies of the present invention are aligned such that the respective drive assemblies operate in response to one motor.

Accordingly, Moffett does not teach or suggest a pump assembly having one or more motors that are capable of driving more than one drive assembly. To the contrary, Moffett teaches away from a pump assembly capable of operating in conjunction with drive assemblies of other pumps by remotely positioning pumps (and respective drive assemblies) apart from one another. By doing so, Moffett limits the pumps to independent operation, in contrast to the present invention which facilitates the operation of pumps in a cooperative mode. Thus, Moffett does not disclose all of the elements

described in independent claims 1 and 15 and therefore must be removed as a §102(b) reference.

The Claims are not Obvious in View of Prior Art

The Examiner rejects claims 3, 11, 13, 14, 26, 27, and 29-33 under 35 U.S.C. §103(a) as being unpatentable over Moffett in view of—either alone or in combination with—U.S. Patent No. 3957203 to Bullard and U.S. Patent No. 3074649 to Atkinson.

The Cited References

In rejecting claims 3 and 11, the Examiner alleges that Moffett discloses all of the subject matter as defined within the scope of the claims, and discussed above, but does not expressly disclose that the couplings are capable of receiving a hose (claim 3) and that the pumps are diaphragm pumps (claim 11). With respect to claim 3, the Examiner argues that it is well known in the art of fluid handling that hoses may be used as fluid conduits and that it would have been obvious to modify the device of Moffett such that the couplings are capable of connecting hoses together so that hoses may be used for ease of construction of the fluid handling system. Furthermore, with respect to claim 11, the Examiner argues that diaphragm pumps are well known as a structural equivalent of a pump to pump fluid; thus, it would have allegedly been obvious to substitute the pumps of Moffett with a diaphragm pump so that the fluid is moved in a more efficient manner.

With respect to claims 13-14, 26-27, and 29-33, the Examiner argues that Moffett discloses all of the recited subject matter as defined within the scope of the claims with the exception of the system being mounted on a vehicle or mobile platform with a cab, boom, or basket and nozzle. According to the Examiner, Bullard allegedly teaches that a mixed fluid material supplied in a tank may be provided upon a mobile platform 12 and can be sprayed utilizing a boom 76 mounted nozzle 82. Atkinson supposedly teaches that a fluid delivery system from a tank 9, boom 3, and nozzle 1 may be operated from a cab

53. In sum, the Examiner argues that it would have been obvious to one of ordinary skill in the art to provide the mixing device of Moffett with a mount upon a vehicle or mobile platform with a cab, boom, or basket and nozzle for the mixer tank device of Moffett so that the mixed fluid may be easily transported and delivered to a particular location.

Applicant respectfully disagrees with the Examiner's assessment of the pump assembly as disclosed by Moffett, the alleged mobile platform as disclosed by Bullard, and the controls operating the boom as disclosed by Atkinson.

Moffett

As set forth above, Moffett teaches pump assemblies that are spaced apart from one another and arranged adjacent to the respective reservoirs. As configured, the pumps—and respective drive assemblies associated with each pump—operate independently. Stated differently, Moffet teaches pumps that are restricted to independent operation, wherein each respective motor engages each respective drive assembly to independently operate each pump assembly. Being restricted to independent operation, Moffet fails to teach pump assemblies that are capable of operating in conjunction with one another.

In contrast, the present invention provides a plurality of tanks 15, 16, 17, 18; a pump assembly having one or more pumps 22, 23, 24 (each having a drive assembly 26); and one or more motors 25 connected to the drive assemblies such that the motor engages the drive assemblies of each pump to drive one or more of the drive assemblies. See Figs. 1-3, and 5.

The Examiner alleges that Moffet discloses pump assemblies of the type claimed in the present application. Applicant submits that the pumps disclosed by Moffett are positioned within the system in such a fashion as to prevent a motor of a first pump to engage and drive the drive assembly of a second or third pump. Stated differently, the Moffet pumps are not aligned and do not include a motor that is capable of engaging and

driving the drive assembly of another pump. Accordingly, Moffett fails to disclose an apparatus having pumps that are aligned such that a motor of one pump drives the drive assemblies of other pumps. Instead, the pumps of Moffet are spaced apart and incapable of uniformly engaging and operating the drive assemblies of the other pumps.

Bullard

Bullard describes a gunning apparatus integrated into a vehicle frame, wherein the apparatus operates to line and repair the interior walls of chambers (e.g., coke ovens) used in the manufacture of steel. The Examiner alleges that Bullard discloses a mobile platform 12. Applicant submits that the Examiner misinterprets the meaning of the term mobile as used to describe the platform. As described and depicted in the figures, “mobile” describes a characteristic of the platform and not necessarily the vehicle. Vehicles are inherently mobile, whereas platforms are not. The Examiner has incorrectly understood assigned the term “mobile” to describe the vehicle—as opposed to the wheeled platform of the present invention.

Applicant disagrees with the Examiner’s assessment and submits that the alleged “mobile” platform of Bullard is in fact a truck bed forming an integral part of the vehicle frame (see Bullard, column 2, lines 32-33). In contrast, the present invention includes a wheeled platform 54 having tanks, a boom, and pump assemblies secured thereto, wherein the platform structure is independent of (i.e., not integral with) the vehicle frame. As constructed, Bullard fails to teach the use of a platform independent of a vehicle that is capable of supporting tanks, pump assemblies, and a boom, wherein the platform is mobile and readily removed, deployed, and secured to another vehicle (see Figures 7 and 8).

The Examiner admits that Bullard teaches the use of a tank containing a previously mixed fluid material. In contrast, the present invention includes a plurality of tanks containing fluids for mixing, wherein the fluids are mixed in a manifold and

immediately dispensed—not stored. Bullard teaches away from the present invention because it describes a single tank containing previously mixed fluids that is secured to a truck bed.

Applicant submits there is no motivation to combine Bullard with Moffett to arrive at the present structure because Bullard teaches the use of a tank and boom assembly integral with (i.e., an essential part of) a vehicle frame. Bullard fails to teach a platform having a tank and boom, wherein the platform is mobile apart from the vehicle. The combination of Moffett and Bullard results in a vehicle having pumps, tanks, a boom, and a spray nozzle mounted to the boom, wherein each of the above-referenced components are secured directly to the frame of the vehicle. This combination does not result in a wheeled platform supporting the components, wherein the platform is independent of the vehicle frame such that the platform may be removed from one vehicle, transported, and affixed to another vehicle.

Accordingly, Moffett, taken either individually or in combination with Bullard, does not teach or suggest a mixing assembly (i.e., pump and manifold) secured to a wheeled platform that can be releasably secured to—and selectively operated from—any number of compatible vehicles.

Atkinson

Atkinson discloses a vehicle mounted boom for spraying insulators on power lines. The Examiner argues that Atkinson teaches a fluid delivery system comprising a tank, a boom, and a nozzle, wherein the system may be operated remotely from a cab of a vehicle. Applicant submits that while Atkinson may teach the use of a spray nozzle mounted to a boom that is operated from remote controls, the use of these components in combination with the structure of Moffett and Bullard fails to render the present invention obvious.

For the reasons stated above, Moffett fails to stand as proper prior art, and taken either individually or in combination with Bullard and Atkinson, does not teach or suggest (1) aligned pump assemblies that are capable of operating in conjunction with one another via drive assemblies, or (2) a mixing assembly (i.e., pump and manifold) secured to a wheeled platform that can be selectively operated on any number of compatible vehicles.

In view of the structural distinctions between the present invention and the cited references, Applicant submits that combining Moffett—either alone or in combination with—Bullard and Atkinson in a way that renders the present invention obvious relies on impermissible hindsight.

Amended Independent Claims 1 and 15 are Patentable

Claim 1

Applicant has amended independent claim 1 to incorporate the subject matter of dependent claims 8 and 9. Specifically, Applicant has amended claim 1 to include the plurality of pumps of claim 8 (now cancelled) that are capable in drawing liquids from the tanks in defined ratios and the motors of claim 9. Thus, amended independent claim 1 now defines a pump assembly having a plurality of pumps each having a drive assembly, and one or more motors connected to one or more of the drive assemblies such that the motors engage and drive one or more of the drive assemblies. Advantageously, the pumps are capable of operating in conjunction with one another. Stated differently, the motor of one pump can operate its respective drive assembly and the drive assemblies of the remaining pumps.

Further, claim 1 now further defines over the prior art because the pumps are capable of drawing liquids from the tanks in defined ratios through the pumps to the manifold for mixing and dispensing.

In contrast, Moffet—alone or in combination with—Bullard and Atkinson fails to describe, teach, or suggest an apparatus for mixing liquid decontaminants and dispensing a foam-based or liquid-based decontaminant that includes a plurality of tanks and pumps having drive assemblies, wherein a motor connected to one drive assembly is capable of engaging one or more drive assemblies of the adjacent pumps. Moffet—alone or in combination with—Bullard and Atkinson further fails to describe, teach, or suggest an apparatus capable of drawing liquids from the tanks in defined ratios for mixing as well as dispensing.

Claim 15

Applicant has amended independent claim 15 to incorporate the subject matter of dependent claims 22 and 23. In particular, Applicant has amended claim 15 to include the first and second pumps having drive assemblies of claim 22, and the coupling connecting the respective drive assemblies and the motor connected to the first drive assembly of claim 23 (now cancelled). Amended independent claim 15 now defines a mobile decontamination module that includes a plurality of tanks, a first pump in communication with the tanks, a first drive assembly of the first pump, a second pump in communication with the tanks, a second drive assembly of the second pump, and a first coupling connecting the first and second drive assemblies, wherein a motor connected to the drive assembly of the first pump engages the drive assembly of the first pump and drives the drive assemblies of the first pump and the second pump. Stated differently, claim 15 describes a coupling connecting the first and second drive assemblies such that the motor connected to the first drive assembly engages and drives both the first and second drive assemblies of the first and second pumps.

Moffet—alone or in combination with Bullard and Atkinson—fails to describe, teach, or suggest a mobile decontamination module that includes a plurality of tanks, a first pump having a first drive assembly, a second pump having a second drive assembly,

and a first coupling that connects the first and second drive assemblies, wherein a motor connected to the first drive assembly engages and drives both the first and second drive assemblies of the first and second pumps.

Accordingly, Applicant submits that amended independent claims 1 and 15 include patentable subject matter and are now allowable.

New Independent Claim 34 is Patentable

New independent claim 34 defines a mobile decontamination module that includes a plurality of tanks, a first pump having a motor and drive assembly, a second pump having a motor and drive assembly, and a wheeled platform for supporting the tanks and pumps, wherein the platform is independent of—yet capable of being releasably secured to—any number of compatible vehicles. As claimed and described, the present invention provides a platform that is mobile among vehicles. In contrast, Moffett—alone or in combination with Bullard and Atkinson—fails to describe, teach, or suggest a mobile decontamination module having a platform that is capable of being releasably mounted to any number of compatible vehicles, wherein the platform supports a plurality of tanks, a first pump having a motor and drive assembly, a second pump having a motor and drive assembly, and a manifold that facilitates the mixing and dispensing of foam-based and liquid based decontaminant.

Accordingly, Applicant submits that new claim 34 includes patentable subject matter and is now allowable.

Amended Dependent Claims now Conform to the Amended Independent Claims

Applicant has amended the appropriate dependent claims to conform to the amended independent claims and to more clearly define the present invention. Specifically, Applicant has amended the second line of dependent claim 7 to delete the term “is” and substitute the term “are” therefore. Further, Applicant has cancelled claim

8 as the subject matter therein has been incorporated into independent claim 1. Applicant has amended dependent claims 9 and 10 to reflect the incorporation of the motor into independent claim 1 and to correct the dependency from claim 8 (now cancelled) to claim 1. Applicant has also amended dependent claim 11 to correct the dependency from claim 8 (now cancelled) to claim 1.

Claim 16 has been amended to delete reference numeral "11" following the term tanks (see similar amendment to independent claim 15). Applicant has amended the second line of dependent claim 21 to delete the term "is" and substitute the term "are" therefore. As noted above, claim 22 has been amended to reflect the incorporation of the first and second pumps into claim 15, and claim 23 has been cancelled to reflect the incorporation of the coupling and motor into claim 15. Applicant has cancelled claim 24 and amended claim 25 to reflect the incorporation of the first coupling and motor into claim 15 and to reflect proper dependency.

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CONCLUSION

Based on foregoing amendments and arguments, Applicant submits that pending Claims 1-7, 9-22, 25-34 are now in immediate condition for allowance, and the same is respectfully requested. Presently, there are 31 pending claims in this application; thus, Applicant believes that there are no fees due associated with this amendment. Nevertheless, the Commissioner is authorized to charge any additional fee, or credit any refund, to our Deposit Account No. 50-0332.

Respectfully submitted,




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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on November 10, 2005.



Patricia Summers

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DRAWING AMENDMENTS

Please substitute the enclosed replacement sheets depicting the proposed replacement Figures 1-8.

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